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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/783,465	02/20/2004	Lewis R. Dove	10020706-1	7444

7590 07/26/2005

AGILENT TECHNOLOGIES, INC.  
Intellectual Property Administration  
Legal Department, DL429  
P.O. Box 7599  
Loveland, CO 80537-0599

EXAMINER

LEE, BENNY T

ART UNIT	PAPER NUMBER
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2817

DATE MAILED: 07/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.



UNITED STATES DEPARTMENT OF COMMERCE  
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SERIAL NUMBER	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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16-783465

EXAMINER
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ART UNIT	PAPER NUMBER
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DATE MAILED:

This is a communication from the examiner in charge of your application.  
COMMISSIONER OF PATENTS AND TRADEMARKS

☒ This application has been examined ☐ Responsive to communication filed on \_\_\_\_\_ ☐ This action is made final.

A shortened statutory period for response to this action is set to expire Three (3) month(s), \_\_\_\_\_ day(s) from the date of this letter.  
Failure to respond within the period for response will cause the application to become abandoned. 35 U.S.C. 133

Part I THE FOLLOWING ATTACHMENT(S) ARE PART OF THIS ACTION:

- |   |   |
|---|---|
| 1. <input checked="" type="checkbox"/> Notice of References Cited by Examiner, PTO-892. | 2. <input type="checkbox"/> Notice re Patent Drawing, PTO-948.                  |
| 3. <input checked="" type="checkbox"/> Notice of Art Cited by Applicant, PTO-1449.      | 4. <input type="checkbox"/> Notice of Informal Patent Application, Form PTO-152 |
| 5. <input type="checkbox"/> Information on How to Effect Drawing Changes, PTO-1474.     | 6. <input type="checkbox"/> _____   |

Part II SUMMARY OF ACTION

1. ☒ Claims 1-21 are pending in the application.

Of the above, claims \_\_\_\_\_ are withdrawn from consideration.

2. ☐ Claims \_\_\_\_\_ have been cancelled.

3. ☐ Claims \_\_\_\_\_ are allowed.

4. ☒ Claims 1-8; 9; 10-15; 16-21 are rejected.

5. ☐ Claims \_\_\_\_\_ are objected to.

6. ☐ Claims \_\_\_\_\_ are subject to restriction or election requirement.

7. ☐ This application has been filed with informal drawings under 37 C.F.R. 1.85 which are acceptable for examination purposes.

8. ☐ Formal drawings are required in response to this Office action.

9. ☐ The corrected or substitute drawings have been received on \_\_\_\_\_. Under 37 C.F.R. 1.84 these drawings are ☐ acceptable; ☐ not acceptable (see explanation or Notice re Patent Drawing, PTO-948).

10. ☐ The proposed additional or substitute sheet(s) of drawings, filed on \_\_\_\_\_, has (have) been ☐ approved by the examiner; ☐ disapproved by the examiner (see explanation).

11. ☐ The proposed drawing correction, filed \_\_\_\_\_, has been ☐ approved; ☐ disapproved (see explanation).

12. ☐ Acknowledgement is made of the claim for priority under U.S.C. 119. The certified copy has ☐ been received ☐ not been received ☐ been filed in parent application, serial no. \_\_\_\_\_; filed on \_\_\_\_\_.

13. ☐ Since this application appears to be in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11; 453 O.G. 213.

14. ☐ Other

SN 783465  
EXAMINER'S ACTION

The disclosure is objected to because of the following informalities: Page 5, paragraph [0013], note that updated status information for the cited co-pending application should be provided, if available. Page 6, paragraph [0015], second line therein, note that --respective-- should precede “first” and “second” for clarity of description. Page 6, paragraphs [0015] and [0017], the reference labels therein should be associated with appropriate ones of Figs. 1 & 2 in which they are depicted (e.g. 116, 118 appear in “fig. 1”; 216, 218 appear in “Fig. 2”, etc). Pages 7, 8, paragraphs [0021] & [0022], note that the following recitations should be rewritten for clarity: “cutting 402”; “mounted 404”; “placed 408”; “selected 502”; “mounted 504”; “coupled 506”; “placed 508”. Appropriate correction is required.

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the ribbon bond (e.g. cls 2, 11), the mesh bond (e.g. cls 3, 12) and the plurality of wire bonds (e.g. cls 4, 13), respectively must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Art Unit: 2817

Claims 5-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 5, 6, note that “the second ground shields” lack strict antecedent basis.

In claim 7, note that “the substrate” lacks strict antecedent basis.

In claim 8, note that “the first and second dielectrics” lack strict antecedent basis.

The following claims have been found objectionable for reasons set forth below:

In claims 9, 10, 16, note that a --:-- should follow “comprising” (i.e. line 1 of each claim) for a proper characterization.

In claims 11-15, 17-21, since these claims depend from a respective independent claim, then their format should also be that of a method claim.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1 is rejected under 35 U.S.C. 102(b) as being clearly anticipated by Ishihara.

Ishihara discloses a microwave circuit comprising: a first module (100); a second module (200); wherein each module includes a conductor (1) sandwiched between thick dielectrics (2, 3) and ground shields (4, 5) surrounding dielectrics (2, 3). Moreover, a cut edge or notch (6) is formed in the upper dielectric (3) of each module (100, 200) and the notches are arranged to face each other. Note that a small piece (7) includes a bridging conductor (11), which has a ground shield layer or cap (51) disposed over the bridging conductor. Furthermore, note that the small

Art Unit: 2817

piece (7) is disposed such that bridging conductor (11) electrically interconnects conductors (1) of modules (100, 200) while the ground shield cap (51) electrically connects with ground shield (5).

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 9; 10; 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishihara in view of the IBM Technical Disclosure Bulletin.

As described in the preceding rejection, Ishihara discloses the claimed invention except for the modules (100, 200) being disposed on substrates.

The IBM Technical Disclosure Bulletin discloses the use of substrates (8, 9) as a part of modules to be interconnected as being conventional in the art.

Accordingly, it would have been obvious in view of the references, taken as a whole, to have modified the Ishihara modules (100, 200) to have included substrates, such as conventionally taught/suggested by the IBM reference, thereby suggesting the obviousness thereof.

Art Unit: 2817

Claims 2, 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishihara in view of Cox et al.

Claims 11, 13; 17, 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over the above rejection as applied to claims 10, 16, respectively above, and further in view of Cox et al.

Note that for each of the above rejections, Ishihara discloses the claimed invention except for the bridging conductor being a ribbon or plural wires.

Accordingly, in view of the teaching in Cox et al, it would have been obvious to have replaced the bridging conductor (11) in Ishihara by an alternative yet equivalent bridging means such as the ribbon/plural wires taught by Cox et al, thereby suggesting the obviousness of such a modification.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ishihara in view of Drapeau et al.

Claims 12; 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over the above rejection as applied to claims 10, 16, respectively above, and further in view of Drapeau et al.

Note that for each of the above rejections, Ishihara discloses the claimed invention except for the bridging conductor being a conductive mesh.

Accordingly, in view of the teaching in Drapeau et al, it would have been obvious to have replaced the bridging conductor (11) of Ishihara by an alternative yet equivalent bridging means such as the conductive mesh (80) conventionally taught by Drapeau et al, thereby suggesting the obviousness of such a modification.

Claims 5, 6, 7, 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishihara in view of Dove et al ('979), cited by applicants'.

Art Unit: 2817

Claims 14, 15; 20, 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over the above rejection as applied to claims 10, 16, respectively above, and further in view of Dove et al ('979), cited by applicants'.


Ishihara discloses the claimed invention except for soldering or conductive epoxy bonding of the ground shielding cap to the grounding shield (5). Also, Ishihara differs from the claimed invention in that a ceramic substrate and KQ dielectrics are unspecified.

Dove et al discloses that the use of soldering or conductive adhesive (e.g. epoxy) for the shielding conductor is conventional (e.g. col 5, ls 17-19). Moreover, Dove et al discloses that ceramic substrate (10) is conventional for use with transmission line (9) and that KQ dielectrics (12, 14) are conventional in the art.

Accordingly, it would have been obvious to have: realized the dielectrics of the modules (100, 200) as being KQ dielectrics; realized the substrate as a ceramic; and realized that soldering or conductive adhesive of ground shield portions is conventional. Such modifications would have been considered obvious in view of the conventional nature of such materials and techniques for use in such modules, thereby suggesting the obviousness of such modifications.

Any inquiry concerning this communication should be directed to Benny Lee at telephone number 571 272 1764.

B. Lee

  
BENNY T. LEE  
PRIMARY EXAMINER  
ART UNIT 2817